

عنوان مقاله:

Using mutual solvents in removing water block

محل انتشار:

کنگره ملی کاوش نفت و گاز - تولید صیانتی (سال: 1388)

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نویسندگان:

khalil Shahbazi - dean of petroleum engineering faculty of Ahvaz, Petroleum University of Technology

Arman sepahvand - M.s Student of Petroleum University of Technology

خلاصه مقاله:

The entrapment of Aqueous phase within porous media Can occur in a number of different situations during drilling, completion, work over and production operations. Removing the entrapped aqueous phase (water block) can increase the impaired hydrocarbon relative permeability. In this study, the efficiency of using alcohols in removing water block for increasing hydrocarbon relative permeability and improving oil recovery is examined and the results of laboratory tests are presented. The experimental setup consisted of a stainless steel core holder for cylindrical cores, a displacement pump and a pressure transducer. Outcrop sandstone plug was used in this experiment and we used methanol, ethanol and isopropanol as water block removing agents. The results obtained showed that using methanol and specially ethanol can effectively remove water block and increase oil relative permeability but in the case of .isopropanol, not only the oil relative permeability did not increased but it caused a reduction in it

کلمات کلیدی:

phase trapwater blockmutual solventsalcoholrelative permeability

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